RAILROAD SAFETY

APPENDIX TO HEARINGS

BEFORE THE

SUBCOMMITTEE OF THE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE UNITED STATES SENATE

EIGHTY-THIRD CONGRESS

FIRST SESSION

ON

S. 539

A BILL TO AUTHORIZE THE INTERSTATE COMMERCE COMMISSION TO MAKE MANDATORY THE INSTALLATION OF CERTAIN RAILROAD COMMUNICATION SYSTEMS

AND

S. 1401

A BILL TO AUTHORIZE THE INTERSTATE COMMERCE COMMISSION TO REQUIRE CARRIERS ENGAGED IN INTERSTATE COMMERCE BY RAILROAD TO INSTALL POWER BRAKES WHICH COMPLY WITH SPECIFICATIONS AND REQUIREMENTS PRESCRIBED BY THE COMMISSION, AND TO PRESCRIBE RULES, STANDARDS, AND INSTRUCTIONS FOR THE INSTALLATION, INSPECTION, MAINTENANCE, AND REPAIR OF SUCH POWER BRAKES

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JUL 15 1953
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SUBMITTED JUNE 18, 1953, BY ASSOCIATION OF AMERICAN RAILROADS

PART 2

Printed for the use of the Committee on Interstate and Foreign Commerce

UNITED STATES
GOVERNMENT PRINTING OFFICE
32381 WASHINGTON : 1953

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RAILROAD SAFETY

SUPPLEMENTARY STATEMENT ON BEHALF OF THE ASSOCIATION OF AMERICAN RAILROADS IN OPPOSITION TO S. 1401 AND S. 539

In the course of the hearings before this committee April 14 and 15, 1953, on S. 539 and S. 1401, permission was granted to file for the record a supplementary statement on behalf of the Association of American Railroads. This statement is filed accordingly. It has to do primarily with S. 1401, commonly referred to as the brake bill. However, because both S. 1401 and S. 539, the so-called operating-rules bill, are advanced as safety measures, and because in our view they represent companion attempts to secure congressional approval of the long standing determination of the Interstate Commerce Commission's Legislative Committee and Commissioner Patterson to have the Commission enter the field of private management of the operation of the railroads, both bills are considered herein.

S. 1401, the brake bill, would amend the Safety Appliance Act so as to confer upon the Commission authority to prescribe the specifications for power or train brakes as in its view would be appropriate, and would also grant to the Commission the power to prescribe rules, standards, and instructions for the installation, inspection, maintenance, and repair of such brakes and to make such rules, standards, and instructions obligatory upon the railroads.

S. 539, the operating-rules bill, would amend section 25 of the Interstate Commerce Act in two important aspects. Section 25 as it now stands gives the Interstate Commerce Commission authority to require any carrier to install "the block signal system, interlocking, automatic train stop, train control, and/or cab-signal devices, and/or other similar appliances, methods, and systems intended to promote the safety of railroad operation," and also to prescribe rules, standards, and instructions for the installation, inspection, and repair of those systems and devices. The first important provision of the bill, the "communications provision," would extend the authority of the Commission under section 25 to include "telegraph, telephone, radio, inductive, or other wayside and/or train-communication systems." The second important provision, the "operating-rules provision," would broaden section 25 so as to include the establishment, maintenance, and observance of rules and regulations for the operation of trains in connection with the signaling and/or communications systems referred to in that section.

S. 539 and S. 1401, of course, are not identical or even very similar bills. Nevertheless, there are a number of features common to each which support our position that there is no occasion whatsoever for the enactment of either bill. Comment is therefore first directed to those features. Thereafter the two bills will be dealt with separately.

Both bills are designed to bring the Interstate Commerce Commission into the field of private management and operation of railroad trains. S. 1401 would in effect constitute the Commission a comanager of the railroads with respect to power-brake installations, inspection, and maintenance. S. 539 would authorize the Commission in effect to manage the operation of the railroads through the prescription and enforcement of rules for the operation of trains. Division of authority in the field of train operation between management on the one hand, and the Interstate Commerce Commission on the other hand, would inevitably result in a sense of divided responsibility with the resultant impairment in rather than improvement of safety and efficiency of railroad operation. Both bills are directly contrary to the generally accepted policy of increased reliance upon the initiative and responsibility of private management in industry and of less, rather than more, interference by regulatory agencies.

Both bills would give to the Commission authority to impose requirements which would bring about large capital expenditures in order for the carriers to comply. They would thus to some extent transfer from railroad management to a regulatory agency the responsibility of determining how best available financial resources should be expended in order to bring about the maximum improvement in the railroad plant in the interest of safe, efficient, and economical operation.

Both bills proceed on the assumption that railroad management has been lax, unwise, or inexpert in providing the best available installations and establishing the best operating practices looking to railroad safety and further that the Inter-State Commerce Commission would be more alert and expert in these fields. It is obvious that no one could have more powerful motivation to improve the safety and efficiency of railroad operation than railroad management itself. It is equally obvious that the railroad officers who are intimately familiar with conditions on their respective lines are far better qualified in the field of train operation than the members of the Interstate Commerce Commission or its staff.

Both bills are denominated "safety bills." In this regard, it should be borne in mind that Mr. D. E. Mumford, manager of safety, New York Central System, who appeared for the railroads in opposition to S. 539, submitted to the committee statistics of the Interstate Commerce Commission which show that over the past 30 years there has been constant and marked improvement in the safety of railroad operation. The Commission's statistics clearly show that 1952 was the best year on record.

Both bills would impose many new duties and responsibilities upon the Interstate Commerce Commission, the effective discharge of which would require the aquisition of a large staff of specially qualified men and the expenditure of considerable sums by the Commission. The Commission today has neither an adequate staff nor sufficient funds to discharge the duties and responsibilities already imposed upon it under the present law.

The 83d Congress is the first Congress in which there has been introduced a bill identical with or similar to S. 1401, the brake bill. While S. 539 in one form or another has been advocated by the Interstate Commerce Commission for some years, it is our understanding that the immediate reason for the request by the Commission for the introduction of S. 1401 was the Pennsylvania Railroad accident which occurred at the Union Station in Washington, D. C., on January 15, 1953. The attention of the committee has heretofore been called to the only recommendation made by the Commission following its investigation of that accident. The recommendation reads:

"We recommend that all passenger-train cars equipped with tight-lock or similar type couplers operated over any railroad subject to the Interstate Commerce Act be inspected immediately, and that such cars on which any angle cock is so located that the handle can come into contact with any other portion or appurtance of the car be withheld from service until such condition is corrected."

It was pointed out that immediately following the Union Station accident, and prior to the issuance of the above quoted recommendation, the railroads, through the mechanical division of the AAR, inaugurated a nationwide program to check all railroad passenger cars on their lines and to make any corrections needed in order to be certain that under the most extreme conditions there is provided ample clearance between the angle cock and any fixed parts or appurtenances. That program, which was well under way on April 14, has now been completed.

Some time after the hearings on S. 1401, Commissioner Patterson of the Interstate Commerce Commission submitted to your committee a statement in rebuttal of testimony introduced by opponents of the bill. In that statement he called attention to his letter of March 16, 1953. The Commissioner's letter contained a number of suggestions for revision of the Association of American Railroad's Manual of Standard and Recommended Practices with respect to the location of steam and air connections for passenger cars equipped with tight-lock or similar type couplers. In his rebuttal statement, the Commissioner said that to adopt his suggested revision would under the usual procedure require several months, as it would have to be submitted as a letter ballot item for vote to the membership of the Association. It is true that the manual has not yet been amended to include the appropriate change in specifications. However, as previously pointed out in the course of the hearing, the individual railroads did not await revision of the manual before taking corrective action. They immediately set out to relocate the angle cocks on all passenger cars in service where there was any possibility of fouling by reason of insufficient clearance and that corrective action has been completed.

Accidents are bound to occur, and no amount of regulation will ever completely eliminate them. It is submitted that your committee should not enact legislation based on an occasional mishap, but instead should consider the need for such legislation against the background of general overall performance from the standpoint of safety. In looking at the overall performance of the railroads, it should be borne in mind that the total track mileage of the railroads in the United States approximates 395,000 miles. Over these tracks are operated more than 42,000

locomotives, 2 million freight-train cars and 42,000 passenger-train cars. During the course of the year, locomotives are operated in road and yard services approximately 1¼ billion miles. Between terminals, movements amount to almost 900 million train-miles and 35 billion car-miles. An examination of the records of the Interstate Commerce Commission shows that during the 5-year period 1948–52 there were 757,488,000 car-miles operated for each train accident caused by defects in or failures of power brakes and appurtenances. The Commission's statistics further show for the same 5-year period that of all train accidents occurring, less than one-half of 1 percent were directly caused by defects in or failures of power brakes and appurtenances. Further, during that period not a single passenger, and only four employees, lost their lives in an accident attributable to brake failure. Commissioner Patterson, the principal proponent of the brake bill, in his testimony before your committee was able to call attention to only six accidents, out of all the accidents which the Commission investigated during the period 1947–53, as being caused by the failure of the airbrake system. And in each of these cases faulty inspection or maintenance—in other words, man failure—was responsible. From the standpoint of safety, it is certainly clear that there is no need for legislation and regulation with regard to railroad brakes; in the entire field of railroad operation it is probable that nothing presents less occasion for such legislation and regulation than the matter of train brakes.

During the hearings on S. 1401, Commissioner Patterson stated that in the fiscal year 1952 Interstate Commerce Commission inspectors made airbrake tests on 2,661 trains, consisting of 122,214 cars, before departure from terminals and found that brakes were defective or inoperative on 5,626 cars. It will be noted that cars with defective or inoperative brakes constituted only 4½ percent of all cars in the trains tested. It will be further noted from the Commissioner's testimony that more than half of the defects were so minor as to permit repair without setting the car out of the train. In addition, there is nothing in the Commissioner's testimony which indicates the number, if any, of the defects which were of such a character as to render the brakes inoperative.

As stated above, S. 1401 would place in the Commission the authority to prescribe the type of power or train brakes it deemed appropriate. Not one word of testimony was presented or could have been presented to show that the type of brake now in use is not the best to be had. The railroads over the years have spent much time, money, and effort in conducting research in the field of airbrake improvement. This research has been carried on with the cooperation of the Interstate Commerce Commission.

As early as 1885 the committee on train brakes of the Master Car Builders Association, now the committee on brakes and brake equipment of the Association of American Railroads, in cooperation with the Chicago, Burlington & Quincy Railroad, arranged for a series of competitive brake tests. Manufacturers of brakes were invited to cooperate in this test, special instruments were provided and an accurate record made of everything that took place. Fifty-car freight trains were tested under all operating conditions with 5 test runs being made daily over a period of more than 2 weeks. The results of the tests were somewhat disappointing with none of the brakes tested being successful in all respects. The continuous airbrake, however, made much the best showing. In 1887 tests were made over the same course and with practically the same recording apparatus and detailed rules. In these tests only the continuous type of brake was entered by the several brake companies. Following the 1887 test the Westinghouse Air Brake Co. set about making certain changes in its equipment in order to demonstrate that its airbrake could control a 50-car train satisfactorily without the use of electrical instruments.

Many additional tests were conducted under the direction of the committee on brakes in 1892, 1894, 1895, 1900, 1903, and 1905. In 1892 the committee on brakes requested a test rack for testing brakes. The Pennsylvania Railroad offered to establish for the Master Car Builders Association a complete set of airbrake testing apparatus at its Altoona shop. The offer was accepted and the laboratory completed and turned over to the association on May 1, 1893. This laboratory was for the purpose of testing airbrake apparatus, connections, pipe, etc., for 50-car freight trains. This laboratory was removed to Purdue University at Lafayette, Ind., in 1898 and was later improved and equipped to test brake apparatus on a 100-car train. In addition to this laboratory, the Westinghouse Air Brake Co. and the New York Air Brake Co. each have laboratories where there is constant research looking toward improvement in airbrakes. Tests have frequently been made at these laboratories in cooperation with the brake committee representing the railroads.

In 1906, the K–1 and K–2 triple valve brakes were tested by a special committee of the Master Car Builders Association, using the rack and laboratory of the Westinghouse Air Brake Co. In 1913 the airbrake committee recommended the adoption of the K–1 triple valve for 8-inch equipment and the K–2 triple valve for 10-inch equipment for all freight cars as recommended practice. In 1917 the committee recommended their advancement to standard. The interchange rules of the American Railway Association were then changed to provide that ARA standard triple valves be required on all cars built new on and after January 1, 1919, in order to make such cars eligible for interchange.

In 1913 the Pennsylvania Railroad conducted a 4-month investigation of the factors affecting the operation of brakes on steam railroad passenger trains. This was the most scientific and comprehensive study made up to that time.

In 1918 tests of automatic straight airbrakes developed by the Automatic Straight Air Brake Co. were made with a 100-car freight train on the Virginian Railway. These tests were under the direct supervision of the Bureau of Safety, Interstate Commerce Commission, and were witnessed by a number of railroadmen representing the United States Railroad Administration.

In 1921 similar tests were made on the Norfolk & Western Railway. These tests were also under the direct supervision of the Interstate Commerce Commission and were witnessed by the committee on brakes of the American Railway Association.

As stated in the letter of April 24, 1953, addressed to Chairman Tobey, by the Committee on Legislation and Rules of the Interstate Commerce Commission, the ICC in 1922 ordered an investigation into the subject of the use and operation of power brakes. Hearings were held and certain conclusions were reached by the Commission. The report of the Commission was dated July 18, 1924. The conclusions generally were as stated in the Commission's letter.

Following this report, the matter was considered by the board of directors of the American Railway Association and the president of that association advised the Interstate Commerce Commission that before any standards could be changed it would be necessary to conduct research on the subject of replacement of the then existing freight-train brake with a much more expensive and complicated device. An agreement was therefore reached between the association and the Commission providing that the association would make a thorough investigation of power brakes and applicances for operating power-brake systems.

The association placed the responsibility of conducting this investigation upon the committee on safety appliances of its mechanical division. This committee agreed with respesentatives of the Bureau of Safety, Interstate Commerce Commission, upon the general scope and method of procedure of the investigation.

A director of research was appointed by the association in December 1924 to conduct the investigation and a plan of procedure was adopted. The plan provided for obtaining appliances which were claimed to meet the views of the Commission as indicated in its preliminary report and conclusion. The plan further provided that these appliances would be given exhaustive laboratory tests and that following the completion of such tests those devices which possessed sufficient merit would be given road tests to develop whether or not they safely met road conditions.

The American Railway Association addressed inquiries to the airbrake manufacturers to ascertain if they would design and make airbrake equipment which would meet the views of the Commission. In response, the Automatic Straight Air Brake Co. and the Westinghouse Air Brake Co. agreed to furnish such equipment and in February 1925 the association placed an order with each of these companies for 150 sets of airbrake equipment for trial purposes.

Laboratory tests were conducted from June 1925 through January 1929. The ARA K triple valves were also tested in order that the operations of the new brakes might be evaluated. Road tests were conducted on the Southern Pacific in Oregon and California from August 1929 to March 1931. Full and complete reports of the results were distributed to all member roads of the association and members of the Interstate Commerce Commission. Representatives of the Bureau of Safety were present during all tests both in the laboratory and on the Southern Pacific.

Following these tests, a brake was developed in commercial form embodying all of the functions found desirable for a freight car brake. Road service tests of the new brake were conducted on the Pennsylvania Railroad during March and April 1933. The Bureau of Safety of the Commission was represented at the tests and a complete report of the results was distributed.

As a result of the foregoing research on airbrakes, a specification was developed and adopted as standard by the American Railway Association in 1933. This brake is called the AB brake.

The railroads began to apply AB brakes to their new freight cars and in some cases to replace the K brake with the AB, but during the depression years progress was slow.

On August 20, 1934, Mr. Joseph B. Eastman, Federal Coordinator of Transportation, requested that the American Railway Association interchange rules be changed to provide that (1) all new freight cars required for interchange service must be equipped with AB-type airbrakes, and (2) all freight cars in interchange service must be equipped with AB-type brakes on a yearly basis and in such numbers as would insure the complete changeover within a period not to exceed 10 years.

Mr. Eastman's request was considered by the general committee of the mechanical division and that committee recommended that the interchange rules be amended to require that all cars in interchange service on and after January 1, 1945, be equipped with the AB type of brake. This recommendation was sent to the members of the mechanical division on November 10, 1934, for vote by letter ballot. The recommendation was approved, the interchange rules were amended, and today virtually all freight cars moving in interchange are equipped with AB brakes.

The fact that the AB brake has been adopted as standard and is in general use has not resulted in a discontinuance of research in the field of airbrakes. Continuous research is being conducted with a view to improving the existing brake and undoubtedly changes in the present equipment will be made from time to time.

S. 1401 would give to the Commission the authority to prescribe the rules, standards, and instructions necessary for the installation, inspection, maintenance, and repair of brakes which were formulated in 1925 through cooperation between the Commission's Bureau of Safety and a committee of the American Railway Association and which have been in effect since that date. No witness questioned the adequacy of the rules, and in fact Commissioner Patterson in his rebuttal statement said that, if properly enforced, they will insure proper maintenance of power brake equipment. It is plain then that no change in the rules is necessary.

The criticism directed against the railroads, and in truth the only argument presented in support of the brake bill, is an alleged laxity in observance of the brake rules. Such laxity, if any exists, can only be attributed to employee failure to comply with the rules. And S. 1401 is not designed or intended to give to the Commission any authority to discipline employees in the event of their indifference or oversight in complying with the appropriate rules. The only effect of the bill would be to permit the Commission, if it saw fit, to fine the carriers by reason of employee failure in rule observance. Thus, the bill proceeds on the assumption that safety of railroad operation would be improved if the threat of a monetary penalty could be held over the head of railroad management whose employees do not obey the rules. There can be no justification for such an approach, unless it is assumed that railroad management, once having promulgated proper and adequate rules, encourages, or at least closes its eyes to, nonobservance of those rules by its own employees. We are confident that this committee will not indulge in such an assumption.

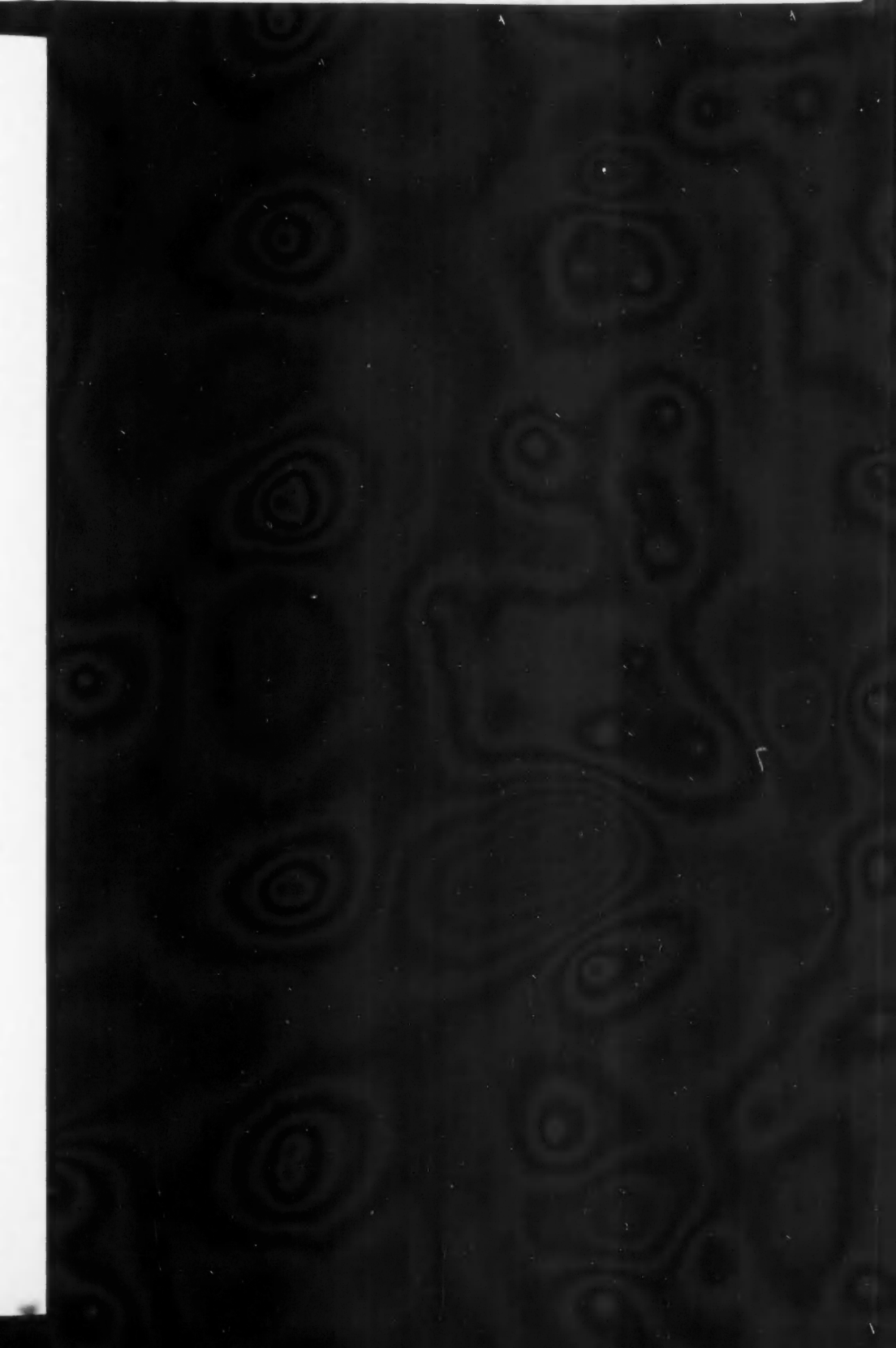
As this committee can well appreciate, the matter of employee discipline is an extremely delicate one. The responsibility for such discipline is one which can properly be discharged only by management. Authorizing the Commission to intervene in the matter of employee discipline by the imposition of penalties on management can contribute nothing to safety and, in our view, would seriously impair safety.

S. 1401, then would do three things: First, it would give the Interstate Commerce Commission authority to prescribe the type of brake to be used—and the brake now used is the best available; second, it would give the Commission the authority to prescribe the rules for brake inspection amd maintenance—and the present rules are admittedly adequate; and, third, it would give the power to the Commission to penalize the railroads for employee failure to observe the rules—for which there is no occasion. There is not the slightest need from the safety standpoint, or any other standpoint, for such grant of authority to the Commission.

S. 539, the operating-rules bill, is divisible into two parts. The first part brings telephone, telegraph, radio, inductive, and other wayside and train-communication systems within the authority of the Commission under section 25 of the act. The second part would confer upon the Commission authority with respect to rules for the operation of trains.

As to the first part, the railroads have been using telegraph installations for communication purposes since the beginning of railroad operation, and the telephone has been utilized since its invention. The testimony contains no criticism of their use by the railroads in connection with train operation, and no reason exists for Commission intervention with respect to these installations. In addition, the effect of the bill would be to freeze existing telephone and telegraph installations and would prevent rapid adaptation to varying operating conditions arising from seasonable changes in traffic and from flood, windstorm, and other natural calamities. Before any substantial change could be made in such installations, it would be necessary under the provisions of the bill to secure prior approval of the Commission. With respect to radio, its adaption to use as a means of communication in railroad operation is being steadily progressed by the railroads and there is no occasion for governmental intervention. To a large extent, the adaptation of radio for successful use in railroad communication is in a formative stage, and in their research and experimentation in this field the railroads should not be hampered by Government regulation.

As to the second part of the bill, it is sufficient to say that it would introduce the Commission directly into the field of train operation. Rules and regulations for the operation of trains are the principal essentials for safe and efficient operation. They lie at the heart of operational management. They must, and do, reflect the long-time experience of qualified railroad employees having knowledge of the widely varying conditions of terrain, weather, and traffic encountered on individual railroads. The Interstate Commerce Commission has no qualification in this field and its intervention would certainly result in less efficiency and less safety in the operation of trains. Railroad management recognizes the matter of safe and efficient train operation as its primary obligation and responsibility. Divided responsibility between railroad management and the Interstate Commerce Commission could have no tendency other than to dilute the high sense of responsibility and obligation now obtaining in railroad management with respect to train operation. Intrusion in the field of management by the Commission could not be other than demoralizing and would lead to less safe and less efficient operation than now exists.

In his appearance before the Senate committee on April 15, 1953, Commissioner Patterson took the position that the Commission should have the authority to establish, in the interest of safety, operating rules for the railroads. In his rebuttal statement filed with the committee, the Commissioner reversed his position stating that he wished to make it clear that the Commission has no intention of usurping the power of or interfering in the management or operation of the railroads and that, since the opponents of the bill were apprehensive of its present wording, which they interpreted as giving the Commission very broad powers over the operation of their trains, he suggested that the bill be amended to express more clearly the scope of the authority intended to be granted to the Commission. It should be noted, however, that the Commission, which sponsored S. 539, has offered no amended or substitute bill.

We believe it to be a generally accepted principle that those who advocate intervention by Government in the field of private management have the burden of demonstrating an unmistakable need that this course be pursued. With respect to S. 539 and S. 1401, the two bills here discussed, there is a complete absence of any such demonstration. We urge that neither bill receives your favorable consideration.